

IN THE CLAIMS:

1. (Currently Amended): A method for fabricating a gasket for fuel cells, comprising the steps of:

grinding two kinds of rubbers having different hardness into a first and a second rubber powders each having a certain average size;

mixing the ground rubber powders with a liquid rubber;

spraying the mixed liquid rubber onto a surface of a rigid plate moving through a container based on a spray method in order for the mixed liquid rubber to be coated on the surface of the rigid plate uniformly;

vulcanizing the rigid plate on which the first rubber powder and the second rubber powder are coated; and

cutting the rigid plate on which the vulcanized first and second rubber powder are coated;

wherein said first rubber powder comprises a material having a hardness of Shore A 25~50 (HS) and a diameter of 0.15~0.3mm, and said second rubber powder comprises a material having a hardness of Shore A 60~80 (HS) and a diameter of 0.1~0.15mm.

2. (Canceled).

3. (Original): The method according to claim 1, wherein said rigid plate is formed of a fabric group having fiber with a glass transition temperature (Tg) of 120°C~150°C, and a melting temperature (Tm) of 200°C~250°C, or a plastic film, or a metal plate, wherein said fabric group, plastic film or metal plate has a thickness of 0.2~0.3mm.

4. (Original): The method according to claim 1, wherein said first rubber powder and said second rubber powder are mixed at a volume ratio of 6~7 : 4~3, respectively.

5. (Canceled).

6. (Original): The method according to claim 1, wherein said liquid rubber has a viscosity of 1,000,000 ~ 3,000,000 cp and is coated on the rigid plate with a thickness of 0.05~0.1mm.

7. (Currently Amended): The method according to claim 1, wherein said second rubber powder [[is]] further comprises a plastic powder having a hardness of Shore D 30~60 (HS).

8. (Canceled).

9. (Canceled).

10. (Canceled).

11. (Original): A method for fabricating a gasket for fuel cells, comprising the steps of:
providing a first rubber powder having a first average size and hardness and a second rubber powder having a second average size and hardness, wherein the first powder has a hardness (Shore A) lower than the hardness of the second powder, and an average diameter greater than the average diameter of the second powder;

mixing the ground rubber powders with a liquid rubber to form a mixed liquid rubber composition;

providing a rigid substrate having a thickness between about 0.2 to about 0.3mm;
coating the mixed liquid rubber composition onto at least one surface of the rigid substrate; and

vulcanizing the coated substrate.

12. (Original): The method according to claim 11, wherein said first rubber powder is formed of a material having a hardness of Shore A 25~50 (HS) and a diameter of about 0.15 to about 0.3mm, and the second rubber powder is formed of a material having a hardness of Shore A 60~80 (HS) and a diameter of about 0.1 to about 0.15mm.

13. (Original): The method according to claim 11, wherein said rigid substrate comprises a fabric having polymeric fiber with a glass transition temperature of about 120°C to about 150°C and a melting temperature of about 200°C to about 250°C.

14. (Original): The method according to claim 11, wherein said rigid substrate comprises a plastic or a metal plate.

15. (Original): The method according to claim 11, wherein said first rubber powder and said second rubber powder are mixed at a bulk volume ratio of 6~7 : 4~3, respectively.
16. (Original): The method according to claim 11, wherein said liquid rubber has a viscosity of about 1,000,000 to about 3,000,000 cp, and wherein the mixed liquid rubber composition is coated on the rigid substrate with a thickness of about 0.05 to about 0.1mm.
17. (Original): The method according to claim 11, wherein said second rubber powder is a plastic powder having a hardness of Shore D 30~60 (HS).
18. (Original): The method according to claim 11, wherein said first rubber powder is formed of a rubber material having a hardness of Shore A 25~50 (HS) and a diameter of about 0.15 to about 0.3mm;
wherein said second rubber powder is formed of a rubber material having a hardness of Shore A 60~80 (HS) and a diameter of about 0.1 to about 0.15mm, or a plastic powder having a hardness of Shore D 30~60 (HS), or a mixture thereof, wherein the hardness of the second powder is greater than the hardness of the first powder;
wherein said liquid rubber has a viscosity of about 1,000,000 to about 3,000,000 cp, and wherein the mixed liquid rubber composition is coated on the rigid substrate with a thickness of about 0.05 to about 0.1mm; and
wherein said rigid substrate comprises a polymer with a glass transition temperature of about 120°C to about 150°C and a melting temperature of about 200°C to about 250°C, or a metal.
19. (Original): A gasket for fuel cell, wherein said gasket is formed by the method of claim 11.
20. (Original): A gasket for fuel cell, wherein said gasket is formed by the method of claim 18.